

REACTION TO FIRE CLASSIFICATION REPORT

No. RA15-0264

ACCORDING TO THE EUROPEAN STANDARD

NF EN 13501-1+A1:2013

Notification by the French Government to the European Commission under no. 0679
Seule la version française fait foi
The French version is legally acceptable

Product standard

NF EN 16153+A1:2015 "Light transmitting flat multiwall polycarbonate (PC) sheets for internal and external use in roofs, walls and ceilings - Requirements and test methods"

Owner: **POLYGAL PLASTICS INDUSTRIES Ltd**
1923800 Kibbutz Ramat Hashofet
ISRAEL

Commercial brand(s): **POLYGAL SUPER THERMOGAL 32 mm (opal, opal ice and colourless)**
POLYGAL THERMOGAL 32 mm (opal, colourless and silhouette)
POLYGAL PCSS 6 mm, 10 mm, 16 mm (opal and colourless)
TRMS 16 mm, 20 mm (opal and colourless)

Manufacturing unit(s): **The manufacturing unit appears in the associated tests reports**

Brief description: **Light transmitting flat multiwall polycarbonate sheet**
(see detailed description in paragraph 2)

Date of issue: **November 04th, 2015**

This classification report certifies only the characteristics of the object submitted for testing but does not prejudice the characteristics of similar products. So it does not constitute a product certification in the sense of Articles L 115-27 to L 115-33 and R 115-1 to R 115-3 of the Consumer Code.
If this report is being issued by e-mail and/or on an electronic medium, only the hard copy of the report signed by CSTB shall prevail in the event of a dispute.
The reproduction of this classification report is only authorised in its integral form.
It comprises 8 pages.

1. Introduction

This classification report defines the classification assigned to the above-mentioned product(s) in accordance with the procedures given in the NF EN 13501-1+A1:2013 standard.

2. Product description

Light transmitting flat multiwall polycarbonate sheets for internal or external use in roofs, walls and ceilings.

The sheet is covered on one side with an anti-UV protection colourless co-extrusion layer made of polycarbonate.

For the "opal" and "opal ice" versions, dyes are added in the polycarbonate material.

For the "silhouette" version, a coloured layer made of polycarbonate is co-extruded on the underside of the anti-UV protective layer.

Overall nominal thicknesses: from 6 to 32 mm.

Overall nominal weights per unit area: from 1300 to 3800 g/m².

Colours: opal, opal ice, colourless and silhouette.

3. Tests reports and tests results in support of this classification

3.1 Tests reports

Name of laboratory	Name of sponsor	Test identification	Test report No.	Test method
CSTB	POLYGAL PLASTICS INDUSTRIES Ltd 1923800 Kibbutz Ramat Hashofet ISRAEL	ES541150326	RA15-0264	NF EN ISO 11925-2:2013 NF EN 13823+A1:2015
		ES541140231	RA14-0341	NF EN ISO 11925-2:2013 NF EN 13823:2013
		ES541140230	Modification file	NF EN 13823:2002
		ES541130485	RA13-0367	NF EN 13823:2002
AFITI LICOF	POLYGAL PLASTICS INDUSTRIES Ltd 1923800 Kibbutz Ramat Hashofet ISRAEL	-	2114T10 2632T13	NF EN ISO 11925-2:2002 NF EN 13823:2010

3.2 Tests results

Test method	Product	Number of tests	Parameters	Results
				Compliance parameters
NF EN ISO 11925-2 30s surface exposure	POLYGAL THERMOGAL SUPER 32 mm (opal ice) Anti-UV side	6	Fs > 150 mm Filter paper	Not reached Not ignited
NF EN ISO 11925-2 30s surface exposure	POLYGAL THERMOGAL SUPER 32 mm (opal ice) Side without anti-UV treatment	6	Fs > 150 mm Filter paper	Not reached Not ignited
NF EN ISO 11925-2 30s surface exposure	POLYGAL THERMOGAL 32 mm (silhouette)	6	Fs > 150 mm Filter paper	Not reached Not ignited
NF EN ISO 11925-2 30s surface exposure	POLYGAL SUPER THERMOGAL 32 mm	6	Fs > 150 mm Filter paper	Not reached Not ignited
NF EN ISO 11925-2 30s surface exposure	POLYGAL THERMOGAL 32 mm	6	Fs > 150 mm Filter paper	Not reached Not ignited
NF EN ISO 11925-2 30s surface exposure	POLYGAL PCSS 6 mm	6	Fs > 150 mm Filter paper	Not reached Not ignited

3.3 Tests results (continuation)

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters Mean values	Compliance parameters
NF EN 13823	POLYGAL THERMOGAL 32 mm (silhouette)	3	FIGRA _{0.2MJ} (W/s)	2.6	-
			FIGRA _{0.4MJ} (W/s)	2.6	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.6	-
			SMOGRAM ² /s ²)	0.0	-
			TSP _{600s} (m ²)	17.9	-
			Flaming droplets or debris	-	None
	POLYGAL SUPER THERMOGAL 32 mm (opal)	3	FIGRA _{0.2MJ} (W/s)	12.6	-
			FIGRA _{0.4MJ} (W/s)	-	-
			LFS	-	Not reached
			THR _{600s} (MJ)	1.2	-
			SMOGRAM ² /s ²)	1.6	-
			TSP _{600s} (m ²)	16.3	-
			Flaming droplets or debris	-	None
	POLYGAL THERMOGAL 32 mm (opal)	3	FIGRA _{0.2MJ} (W/s)	1.9	-
			FIGRA _{0.4MJ} (W/s)	-	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.6	-
			SMOGRAM ² /s ²)	0.0	-
			TSP _{600s} (m ²)	2.8	-
			Flaming droplets or debris	-	None
	POLYGAL PCSS 6 mm (opal)	3	FIGRA _{0.2MJ} (W/s)	8.5	-
			FIGRA _{0.4MJ} (W/s)	-	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.6	-
			SMOGRAM ² /s ²)	1.9	-
			TSP _{600s} (m ²)	14.1	-
			Flaming droplets or debris	-	None

(-) means: not applicable

3.3 Additional tests

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters Mean values	Compliance parameters
NF EN 13823	POLYGAL SUPER THERMOGAL 32 mm (colourless)	1	FIGRA _{0.2MJ} (W/s)	0.0	-
			FIGRA _{0.4MJ} (W/s)	0.0	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.2	-
			SMOGRAM ² /s ²)	0.0	-
			TSP _{600s} (m ²)	11.8	-
			Flaming droplets or debris	-	None
	POLYGAL THERMOGAL 32 mm (colourless)	1	FIGRA _{0.2MJ} (W/s)	0.0	-
			FIGRA _{0.4MJ} (W/s)	0.0	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.5	-
			SMOGRAM ² /s ²)	0.0	-
			TSP _{600s} (m ²)	18.8	-
			Flaming droplets or debris	-	None
	POLYGAL PCSS 6 mm (colourless)	1	FIGRA _{0.2MJ} (W/s)	0.0	-
			FIGRA _{0.4MJ} (W/s)	0.0	-
			LFS	-	Not reached
			THR _{600s} (MJ)	0.4	-
			SMOGRAM ² /s ²)	0.0	-
			TSP _{600s} (m ²)	15.8	-
			Flaming droplets or debris	-	None

(-) means: not applicable

3.2 Additional tests (continuation)

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters Mean values	Compliance parameters
NF EN 13823+A1	POLYGAL THERMOGAL SUPER 32 mm (opal ice) Anti-UV side	1	FIGRA _{0.2MJ} (W/s) FIGRA _{0.4MJ} (W/s) LFS THR _{600s} (MJ)	0,0 0,0 - 0,3	- - Not reached -
			SMOGRA(m ² /s ²) TSP _{600s} (m ²)	0,0 12,7	- -
			Flaming droplets or debris	-	None
	POLYGAL THERMOGAL SUPER 32 mm (opal ice) Side without anti-UV treatment	1	FIGRA _{0.2MJ} (W/s) FIGRA _{0.4MJ} (W/s) LFS THR _{600s} (MJ)	0,0 0,0 - 0,5	- - Not reached -
			SMOGRA(m ² /s ²) TSP _{600s} (m ²)	0,0 13,9	- -
			Flaming droplets or debris	-	None

(-) means: not applicable

4. Classification and direct field of application

4.1 Reference of the classification

This classification has been carried out in accordance with clauses 11.6, 11.9.3 and 11.10.1 of the NF EN 13501-1+A1:2013 standard.

4.2 Classification

Fire behaviour		Smoke production		Flaming droplets or debris
B	-	s1	,	d0

Classification: B - s1, d0

4.3 Field of application

This classification is valid for the following product parameters:

- The product described in paragraph 2.
- A range of overall nominal thicknesses from 6 to 32 mm.
- A range of overall nominal weights per unit area from 1300 to 3800 g/m².
- A product with an opal, opal ice, colourless or silhouette colour.

This classification is valid for the following end use conditions:

- With a minimum air gap of 80 mm.
- Without substrate or with any A1 or A2-s1,d0 class substrate with a density $\geq 652 \text{ kg/m}^3$ and with a thickness $\geq 9 \text{ mm}$.

5. Limitations

The present document does not represent type approval or certification of the product. The classification assigned to the product in this report is appropriate to a declaration of performance by the manufacturer within the context of system 3 attestation of conformity and CE marking under the European Construction Products Regulation (regulation UE no. 305/2011). The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate. The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

Champs-sur-Marne, November 04th, 2015

**The Technician
Responsible for the test**



Franck GOGUEL

**The Head of Reaction to Fire
Unit**



Gildas CREACH

.....END OF THE CLASSIFICATION REPORT